

ACC NR: AT7003991

SOURCE CODE: UR/0000/66/000/000/0034/0042

AUTHOR: Tsygikalo, A. A.; Kharchenko, Yu. A.

ORG: none

TITLE: Testing the elements of an electrostatic-generator accelerating tube with ring insulators made from new materials

SOURCE: Mezhevuzovskaya konferentsiya po elektronnyim uskoritelyam. 5th, Tomsk, 1964. Elektronnyye uskoriteli (Electron accelerators); trudy konferentsii. Moscow, Atomizdat, 1966, 34-42

TOPIC TAGS: electrostatic generator, particle acceleration, accelerating tube

ABSTRACT: The use of slanted electrodes in accelerating tubes (Van de Graaff et al., Nature, 195, 1292, 1962; E. Koltay, Phys., v. 4, no. 2, 66, 1963) permitted drawing the field strength of the tube closer to the electric strength of a single gap. The results of testing tube elements with ring insulators made from non-alkali glass, pyroceram, and epoxy compound are reported; the elements were

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ACC NR: AT7003991

intended for a 5-Mv accelerating tube. Findings: (1) Tested under $(1-3) \times 10^{-6}$ torr vacuum, the elements had these breakdown voltages: porcelain element, 98 kv; nonalkali-glass, 110 kv; pyroceram, 125-200 kv; (2) As some nonalkali-glass insulators suddenly cracked during the tests, the pyroceram insulators should be preferred; (3) Insulators made from epoxy compound seem promising but require further tests. Orig. art. has: 12 figures and 1 table.

SUB CODE: 09 / SUBM DATE: 06Mar66 / ORIG REF: 000 / OTH REF: 002

4,

Card 2/2

TSYGIKALO, A. I.
~~NAUMOV, PAVEL ALEKSEYEVICH~~

N/5
653.011
.83

TELEGRAFIY Z [TELEGRAPHY, BY] P A. NAUMOV I A I. TSYGIKALO. MOSKVA, SVYAZ'
IZDAT, 1956

V. ILLUS., DIAGRS., GRAPHS, TABLES, INCLUDES BIBLIOGRAPHIES.

YEMEL'YANOV, G. A.; BAZILEVICH, Ye. V.; TSYGIKALS, A.I.; KIRSANOV, V.I.;
PEREGUDOV, A.N., otv. red.; DOBRYNINA, A.Ya., red.; MARKOCH, K.G.,
tekhn. red.

[Telegraphic communication; an informational bulletin] Telegrafnaia
sviaz'; informatsionnyi sbornik. Moskva, Gos. izd-vo lit-ry po
voprosam svyazi i radio, 1958. 104 p. (MIRA 11:11)

1. Russia(1923- U.S.S.R.)Ministerstvo svyazi. Tekhnicheskoye upravleniye.
(Telegraph)

NAUMOV, Pavel Alekseyevich; TSYGKALO, Arkadiy Iosifovich; TOMASHEVSKIY, B.A.
otvetstvennyy redaktor; KOKOSOV, L.V., redaktor; SUSHKEVICH, V.I.,
tekhnicheskiy redaktor

[Telegraph] Telegrafiia. Moskva, Gos. izd-vo lit-ry po voprosam
svyazi i radio. Pt.1. [Principles of telegraphy] Osnovy telegrafii.
1956. 98 p. (MLRA 10:3)
(Telegraph)

TSYGKALIO, A. I.

Operation of telegraph communication; textbook Moskva, Gos. izd-vo lit-ry po voprosam
svyazi i radio, 1952. 135 p. (54-15227)

TK5262.G8

ABRAMOVA, N.A., nauchn. sotr.; BEL'CHENKO, G.V., kand. tekhn. nauk;
 BERENBLIT, V.V., nauchn.sotr.; VASIL'YEV, V.P., kand.khim.
 nauk; DOBYCHIN, D.P., doktor khim. nauk; IOFFE, B.V., dokt.
 khim.nauk; KAMINSKIY, Yu.L., nauchn.sotr.; KARPOVA, I.F.,
 kand. khim. nauk; KOPYLEV, B.A., doktor khim. nauk;
 LUTUGINA, N.V., kand. khim. nauk; MATEROVA, Ye.A., kand.
 khim. nauk; MORACHEVSKIY, Al.G., kand. khim. nauk;
 MORACHEVSKIY, An.G., kand. khim. nauk; NIKEROV, A.E., kand.
 khim. nauk; PAL'M, V.A., kand. khim. nauk; RABINOVICH, V.A.,
 kand. khim. nauk; SOKOLOV, P.N., kand. khim. nauk;
 FRIDRIKHSBERG, D.A., kand. khim. nauk; TSYGIR, Ye.N., nauchn.
 sotr.; SHAGITSULTANOVA, G.A., kand. khim. nauk; SHKODIN, A.M.,
 doktor khim. nauk; YATSIMIRSKIY, K.B.; GRIGOROV, O.N., doktor khim.
 nauk, red.; ZASLAVSKIY, A.I., kand. khim. nauk, red.; MORACHEVSKIY,
 Yu.V., prof., red.; RACHINSKIY, F.Yu., kand. khim. nauk, red.;
 POZIN, M.Ye., doktor tekhn. nauk, red.; PORAY-KOSHITS, B.A., doktor
 khim. nauk, red.; PROTASOV, A.M., kand. fiz.-mat. nauk, red.;
 ROMANKOV, P.G., red.

[Handbook for the chemist] Spravochnik khimika, 2. izd., perer. i
 dop. Moskva, Khimiia. Vol.3. 1964. 1004 p. (MIRA 18:1)

1. Chlen-korrespondent AN SSSR (for Romankov). 2. Deystvitel'nyy
 chlen AN Ukr.SSR (for Yatsimirskiy).

TSYGODA, I.M.; KAZAKOV, V.N.; KOLESHNIKOV, N.A.; BRYUKHANOV, N.G.; BURBA, A.A.;
SADYKOV, V.I.; PIGAREV, A.D.; Primalni uchastiy: PECHENKIN, S.N.;
GLAZACHEV, G.M.; KHVESYUK, F.I.; KODINTSEV, A.V.; YERGALIYEV, E.Ye.;
YERMAKOVA, Z.S.; NOVAK, I.V.; KHIL'KO, I.Ye.; LYASHEVSKIY, R.A.; PROKHOROV, A.I.;
CHERTOVA, N.G.; URUBKO, V.N.; KUGUCHEV, V.V.

Industrial testing of a flow sheet for the processing of Altai complex
metal ores along the lines of the flow sheet used at the Mednogorskii
Combine. TSvet. met. 36 no.12:12-15 D '63. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy gorno-metallurgicheskiy institut
tsvetnykh metallov (for Pechenkin, Glazachev, Khvesyuk, Kodintsev).
2. Irtyskiy polimetallicheskiy kombinat (for Yergaliyev, Yermakova).
3. Mednogorskiy medno-sernyy kombinat (for Novak, Khil'ko, Lyashevskiy,
Prokhorov, Chertova, Urubko, Kuguchev).

SHOYKHET, B.A.; ARAV, R.I.; TSYGONIY, L.D.; RUTKOVSKAYA, L.M.

Desulfation of Sivash brine during its complex treatment.
Ukr. khim. zhur. 29 no.2:214-219 '63. (MIRA 16:6)

1. Gosudarstvennyy institut prikladnoy khimii, Yevpatoriya.
(Sivash region--Brines) (Sulfates)

KHACHATUROV, A.S.; BAZHENOV, N.M. [deceased]; NAUMOVA, S.F.; TSYKALO, L.G.;
YEROFEEV, B.V.

Nuclear magnetic resonance spectra and structure of oligomers of
1,3-cyclohexadiene. Dokl. AN BSSR 7 no.7:459-463 J1 '63. (MIRA 16:10)

1. Institut fiziko-organicheskoy khimii AN BSSR i Institut
vysokomolekulyarnykh soyedineniy AN SSSR.

YEROFEYEV, B.V.; NAUMOVA, S.F.; TSYKALO, L.G.; ZHAVNERKO, K.A.

Polymerization of 1,3-cyclohexadiene. Dokl. AN BSSR 3 no.3:95-99
Mr '59. (MIRA 12:8)

(Cyclohexadiene)

YEROFEYEV, B.V., akademik; NAUMOVA, S.F.; TSYKALO, L.G.

Chromatographic separation of 1,3-cyclohexadiene oligomers. Dokl.
AN SSSR 163 no.4:884-886 Ag '65. (MIRA 18:8)

1. Institut fiziko-organicheskoy khimii AN BSSR. 2. AN BSSR (for
Yerofeyev).

25265

S/190/61/003/007/009/021
B101/B220

15.9203

AUTHORS: Naumova, S. F., Tsykalo, L. G.

TITLE: Thermal polymerization of cyclohexadiene-1,3

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 7, 1961,
1031-1033

TEXT: The aim of the present paper was to achieve a clarification of the widely varying publication data with regard to the polymerization of cyclohexadiene-1,3; (C_6H_8). The authors supposed that an impure initial C_6H_8 might be the reason for these different data. S. F. Naumova et al. has developed a new method for the production of pure C_6H_8 and the spectroscopic control of its purity (author's certificate no. 110964, 1958; Zh. obshch. khimii, 28, 1284, 1958). The results of the polymerization of this pure C_6H_8 are given in the present paper. Freshly distilled C_6H_8 , boiling point $80.5^\circ C$, $d_4^{20} = 0.8440$; $n_D^{20} = 1.4746$; $\log \epsilon = 4.00$ for

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S/190/61/003/007/009/021
B101/B220

Thermal polymerization of ...

λ_{max} = 258 m μ , was dissolved in hexane and alcohol, filled into ampullae and liberated from air by freezing in vacuum. The sealed ampullae were heated in the thermostat at 100, 130, 155, and 200°C. The molecular weight of the polymers was determined cryoscopically in benzene. The data for a temperature of polymerization of 100-155°C are indicated in Table 1. The coefficient of polymerization amounted to 8-9 and was, thus, 4-4.5 times larger than that found by F. S. Shantorovich and I. A. Shlyapnikova (Vysokomol. soyed., 2, 1171, 1960). At 200°C, the polymerization was effected without initiator. The degree of conversion amounted already after 10 hr to 83% and increased to 88%, if the reaction lasted longer. The dimer determined after precipitation of the polymer by methanol and distillation of the solvent and monomer amounted to 33-50%, the liquid polymers having a higher molecular weight than the dimer, to 12-22%, the solid polymer to 17-33.5% of the total yield. If the reaction was continued for 40 hr, the proportion of dimer did not change. Thus, the dimer is not able to participate in the reaction. R.A. Vazanskiv and L. G. Vol'fson are mentioned. There are 2 tables and 7 references: 4 Soviet-bloc and 3 non-Soviet-bloc. The most important reference to

Card 2/4

Thermal polymerization of ...

25265

S/190/61/003/007/009/021
3101/B220

English-language publication reads as follows: A.W. Crossley, J.Chem.
Soc., 85, 1403, 1904.

ASSOCIATION: Institut fiziko-organicheskoy khimii AN BSSR (Institute of
Physico-organic Chemistry, AS BSSR)

SUBMITTED: September 26, 1960

Card 3/4

is y g R, y s
TSYGIR, Ye.N.; FRIDRIKHSBERG, D.A.

The effect of foreign ("parasitic") ions on the process of iono-
phoresis [with summary in English]. Vest. LGU 12 no.16:103-116
'57. (MIRA 10:11)

(Electrophoresis)

TSYGODA, I.M.; PONOMAREV, V.D.

Volatility of zinc sulfide. Trudy Inst.met.i obog. AN Kazakh.SSR
11:175-184 '64. (MIRA 18:4)

TSYGODA, I.M.; KAZAKOV, V.N.; SEREGIN, Yu.I.; KORNEYEV, V.F.; Primali
uchastiye: PECHENKIN, S.N.; GLAZACHEV, A.M.; TRAVIN, V.F.

Pilot plant testing of the sinter roasting of copper charges
with a bottom blow. TSvet. met. 35 no.3:23-30 Mr '62.
(MIRA 15:4)

(Sintering--Testing) (Copper ores)

BUZANOV, I.F., akademik, otv.red.; MEL'NIK, M.K., agronom, red.; OHLOV,
I.P., agronom, red.; FEDOROV, A.I., doktor sel'skokhoz.nauk, red.;
TSYGURA, K.D., agronom, red.; SERDYUK, B.M., red.; MANOYLO, Z.T.,
khud.-tekhn.red.

[Production of sugar beet seeds] Semenovodstvo sakharnoi svekly.
Kiev, Izd-vo Ukrainskoi akad.sel'khoz.nauk, 1960. 271 p.
(MIRA 14:1)

1. Kiyev. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy svekly.

(Sugar beets)

TSYGODA, I.M.

SMIRNOV, V.A.; TSYGODA, I.M.

Practice of feeding electric filters with one half-period current.
Trudy Akad. Nauk Kazakh. SSR 1:136-142 '54. (MIRA 10:1)
(Electric filters) (Copper--Metallurgy)

TSYGULEV, A. A.

YAKOVLEV, V.N., inzh.; PRIVALOV, N.N., inzh., retsenzent; TSYGULEV, A.A., red.;
KARGANOV, V.G., red.graficheskikh materialov; UVAROVA, A.F., tekhn.red.

[Handbooks for mechanics and fitters] Spravochnik slesaria-montazhnika.
Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1957. 548 p.
(MIRA 11:1)

(Machinery--Erecting work)

TSYGULEV, A. A.

(How to identify enemy airplanes) Moskva, Voenizdat, 1942. 36 p.

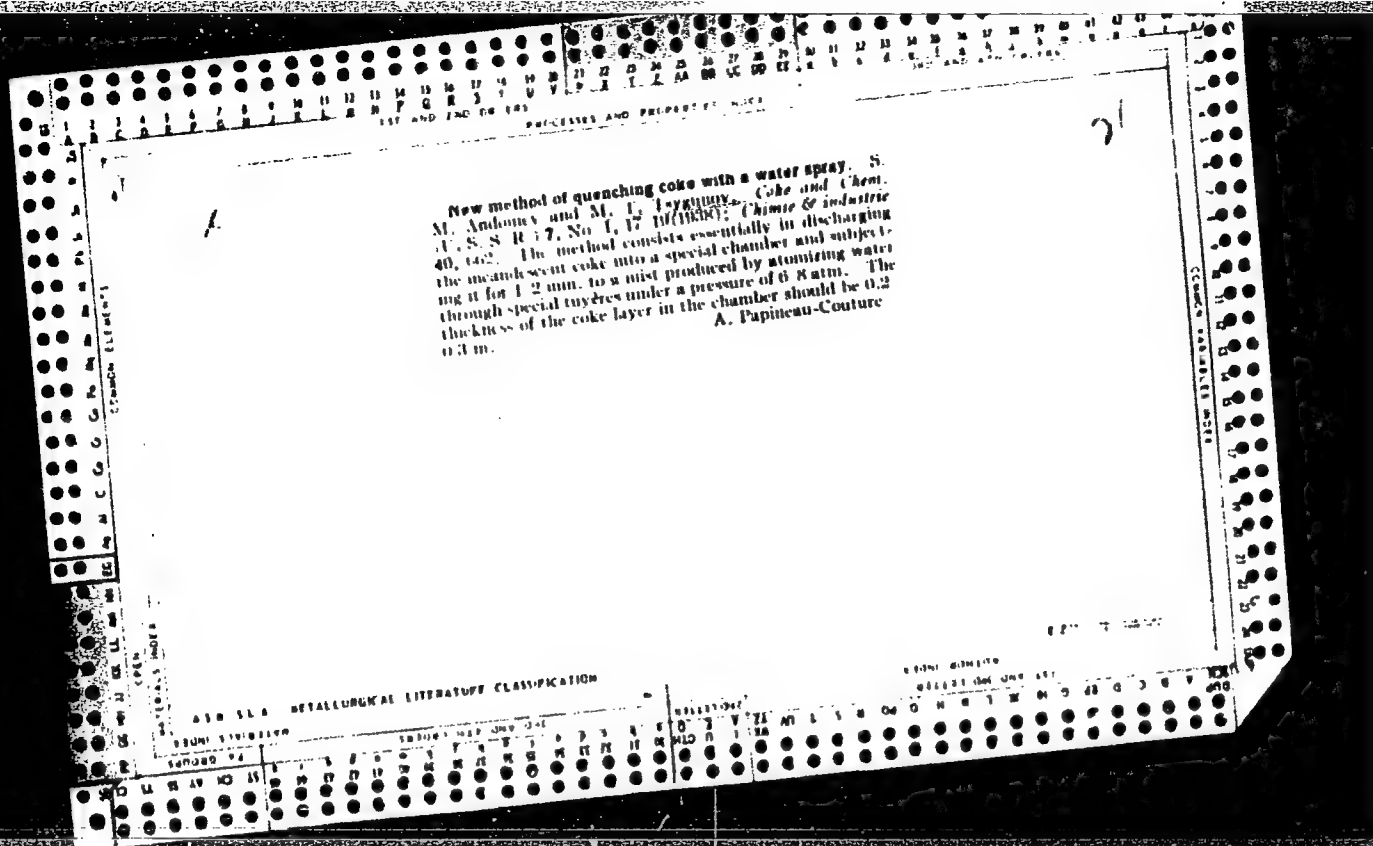
Cyr.4 TL20

1. Aeroplanes - Identification marks.

3

New Method of Quenching Coke by a n Atomised Water Spray. S. M. Adon'ev
and M. T. Tsygunov. (*Koks i Khimiya*, 1938, No. 1, PP. 17-18). (In Russian).

The authors consider the volume of water and the number and type of spray nozzles required for a new method of quenching coke. A more rapid quench, a reduced volume of water, practically no phenol in the waste water and improved properties of the coke produced, are among the advantages claimed for this method.



SOURCE CODE: UR/0000/66/000/000/0120/0126

ACC NR: AT7000962

AUTHOR: Tsykalo, A. L.; Tabachnikov, A. G.

ORG: Odessa Institute of Naval Engineers (Odesskiy Institut Inzhenerov Morskogo Flota)

TITLE: Vapor pressures of liquid hydrogen peroxide and deuterium peroxide

SOURCE: AN UkrSSR. Teplofizicheskiye svoystva veshchestv (Thermophysical properties of materials). Kiev, Izd-vo Naukova dumka, 1966, 120-126

TOPIC TAGS: hydrogen peroxide, deuterium peroxide, vapor pressure, *DEUTERIUM*
(compound)

ABSTRACT: The first half of the article briefly reviews the work previously done on the calculations of the vapor pressure of hydrogen peroxide. Calculations of the saturated vapor pressure of liquid H_2O_2 and liquid D_2O_2 in this work were made using a new method. In this method it is assumed that for polar substances, the molecules of which have an identical dipole moment, the universal relationship $\tau_g = \phi(\pi_g)$ holds, where τ_g is the reduced temperature and π_g is the reduced pressure. The verification of this assumption and the tabulation of $\tau_g = \phi(\pi_g, \mu)$ was carried out on the basis of the analysis of the vapor pressure curves for 26 polar substances. The generalization

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ACC NRI AT7000962

of the vapor pressure curves for H_2O_2 , obtained by the Chebyshev approximation, has the form

$$\lg \pi = -\frac{4,432737}{\tau} + 7,636328 - 5,287567\tau + 2,083976\tau^2.$$

Since the dipole moments of H_2O_2 and D_2O_2 are approximately the same; the above generalized equation was also used for the representation of the saturated vapor pressure curve for D_2O_2 . The article gives the comparison tables for the experimentally measured values of the saturated vapor pressures of H_2O_2 and D_2O_2 with those calculated by the previously proposed and the newly derived equations. Orig. art. has: 3 tables.

SUB CODE: 07/

SUBM DATE: 04Mar65/

ORIG REF: 002/

OTH REF: 014

Card 2/2

YEROFEYEV, I.V.; NAUMOVA, S.F.; TSYKALO, I.G.

Production of benzene by thermal polarization of 1,3-cyclohexadiene.
Dokl. AN BSSR, 6 no. 5:313-315 My '62. (MIRA 15:6)

1. Institut fiziko-~~organicheskoy~~ khimii AN BSSR.
(Cyclohexadiene)
(Benzene)

NAUMOVA, S.F.; TSYKALO, L.G.; DUDINA, G.S.

Kinetics of the thermal polymerization of cyclohexadiene-1,3
at 130° to 160°C. Dokl. AN BSSR 7 no.2:99-102 F '63.
(MIRA 16:7)

1. Institut fiziko-organicheskoy khimii AN BSSR. Predstavleno
akademikom AN BSSR B.V. Yerofeyevym.
(Polymerization) (Cyclohexadiene)

S/020/62/147/001/016/022
B106/B101

AUTHORS:

Yerofeyev, B. V., Academician, AS BSSR, Naumova, S. F.,
Tsykalo, L. G.

TITLE:

Products containing an odd number of monomer links, which
form on the thermal polymerization of cyclohexadiene-1,3

PERIODICAL:

Akademiya nauk SSSR. Doklady, v. 147, no. 1, 1962, 106-107

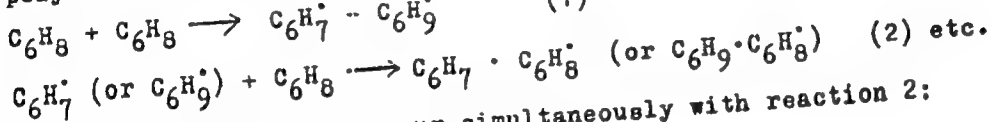
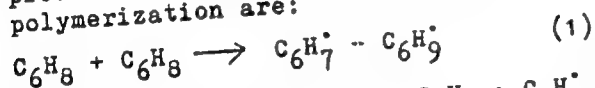
TEXT: Monomer products contained in the crude polymerize were spectro-
photometrically studied in order to clarify the mechanism which underlies
thermal polymerization of 1,3-cyclohexadiene. The content of a trimer
product in the liquid portion of the polymerize was determined. The
monomer products contained $16.1 \pm 3.9\%$ benzene after an 8-hour polymeriza-
tion at 180°C , and $21.8 \pm 5.1\%$ benzene after 10 hrs. After 2, 10, and 40
40 hrs polymerization at 200°C , the monomer products contained 47.1, 40.4,
and 23.5% benzene respectively. At polymerization temperatures of 140,
150, and 165°C no benzene resulted. The molecular weight of the liquid
part of the polymer, separated by methanol, was determined cryoscopically
in order to calculate the amount of trimer in the polymerize. The
resulting values (160-240) indicate that the liquid part of the polymer

APPROVED FOR RELEASE: 08/31/2001

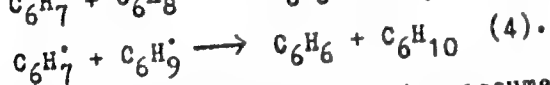
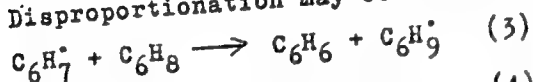
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B106/B101

Products containing an odd ...

contained only dimer and trimer. The trimer percentage α changes between 0.6% (10-hr polymerization at 140°C) and 11.1% (70-hr polymerization at 160°C). The results show that active monomer radicals form on thermal polymerization of 1,3-cyclohexadiene, which either add to a dimer so as to produce a trimer, or else disproportionate into benzene. The first stages of polymerization are:



Disproportionation may occur simultaneously with reaction 2:



The polymerization mechanism assumed by P. S. Shantorovich and I. A. Shlyapnikova (Vysokomolek. soyed., 4, 1369 (1961)) which first yields dimer biradicals recombining into the polymer, is therefore impossible. There

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S/020/62/147/001/016/022
B106/B101

Products containing an odd ...

is 1 table.

ASSOCIATION: Institut fiziko-organicheskoy khimii Akademii nauk BSSR
(Institute of Organic Physical Chemistry of the Academy of
Sciences BSSR)

SUBMITTED: June 4, 1962

Card 3/3

YEROFEEV, B.V.; NAUMOVA, S.F.; KULEVSKAYA, I.V.; MARDYKIN, V.P.;
TSYKALO, L.G.

Polymerization of ethylene in the presence of the complex of
triethyl aluminum with titanium tetrachloride. Vysokom.sped.
3 no.11:1705-1707 N '61. (MIRA 14:11)

1. Institut fizikoorganicheskoy khimii AN BSSR.
(Ethylene)
(Aluminum compounds)
(Titanium chloride)

S/250/63/007/002/006/008
A059/A126

AUTHORS: Naumova, S. F., Tsykalo, L. G., Dudina, G. S.

TITLE: The kinetics of thermal polymerization of cyclohexadiene-1,3 at
130 to 160°C

PERIODICAL: Doklady Akademii nauk BSSR, v. 7, no. 2, 1963, 99 - 102

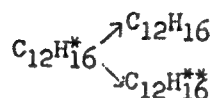
TEXT: The separate amounts of dimers, trimers, and higher polymers formed in the course of thermal polymerization of cyclohexadiene at 130 to 160°C, and during thermal polymerization in benzene and cyclohexadiene at 160°C for 50 hours have been determined. The experimental methods used have been described before (Sb. nauchnykh rabot IFOKh AN BSSR (Collection of Scientific Papers of the IFOKh, AS BSSR), v. 9, 1961, p. 71). The molecular weights of the solid polymer decrease with increasing temperature and depend only little on the time of reaction. The portion of the dimer (δ) at constant temperature is independent of the initial concentration of cyclohexadiene-1,3 which shows that the intermediate product forming in one of the first stages of the reaction undergoes monomolecular reaction with the probability ratio of conversion of this intermediate to yield the

Card 1/3

The kinetics of thermal polymerization of...

S/250/63/007/002/006/008
A059/A126

dimer or a higher polymer remaining constant. One of the stages of the reaction should be therefore



where $C_{12}H_{16}^*$ is the active dimer intermediate, $C_{12}H_{16}$ the inactive dimer (extracted product), and $C_{12}H_{16}^{**}$ the new active intermediate capable of adding a new monomer molecule. The most satisfactory results were obtained with the formulas:

or $\alpha_{\text{dimer}} = KC_0^{1/2} \quad (1)$

$[a]_{\text{dimer}} = KC_0^{3/2} \quad (2)$

where α is the portion of dimerized cyclohexadiene-1,3, and $[a]$ the dimer concentration obtained after 50 hours of polymerization. Hence, no monomer products (including benzene) are formed in the thermal polymerization of cyclohexadiene-1,3 at temperatures of up to 160°C following formula (2) which cannot be derived from the previously assumed polymerization mechanisms of this substance.

Card 2/3

PRESENTED: by B. V. Yerofeyev, Academician of the AS BSSR

SUBMITTED: June 26, 1962

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310017-9

Card 3/3

YEROFEYEV, B.V., akademik; NAUMOVA, S.F.; TSYKALO, L.G.

Products with an odd number of monomeric links formed
in the thermal polymerization of 1,3-cyclohexadiene.
Dokl. AN SSSR 147 no.1:106-107 N '62. (MIRA 15:11)

1. Institut fiziko-organicheskoy khimii AN Belorusskoy
SSR. 2. AN Belorusskoy SSR (for Yerofeyev).
(Cyclohexadiene) (Polymerization)

NAUMOVA, S.F.; TSYKALO, L.G.

Thermal polymerization of 1, 3-cyclohexadiene. Vysokom.soed. 3
no.7:1031-1033 J1 '61. (MIRA 14:6)

1. Institut fiziko-organicheskoy khimii AN BSSR.
(Cyclohexadiene)

S/190/61/003/011/012/016
B110/B101

AUTHORS: Yerofeyev, B. V., Naumova, S. F., Kulevskaya, I. V., Mardukin
V. P., Tsykalo, L. G.

TITLE: Polymerization of ethylene in the presence of the triethyl
aluminum anisolate and titanium tetrachloride complex

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 11, 1961, 1705
- 1707

TEXT: Initiators from triethyl aluminum anisolate (A) and $TiCl_4$ (T) for
ethylene polymerization have low self-inflammability. The authors studied
the properties of polyethylene (PE) produced with them, and the effect of
the A:T ratio on its properties. The $Al(C_2H_5)_3 \cdot CH_3OC_6H_5$ was prepared by
reaction of bromo ethyl with Mg-Al alloys (40% Al; 60% Mg in anisole).
0.0 mole/liter of A (boiling point 97 - 105 °C/4-5 mm Hg) was dissolved in
n-heptane. The $TiCl_4$ concentration in n-heptane was 0.4 moles/liter.
Ethylene was pressed into the reaction vessel at 12 liters/hr. At first
n-heptane, after this $TiCl_4$ in n-heptane, and then, during 1 min, A in
Card 1/3

Polymerization of ethylene in the...

S/190/61/003/011/012/016
B110/B101

n-heptane were added. After 20 min, PE was precipitated by means of CH_3OH with 5% HCl . The tabulated values were found under atmospheric pressure at 50°C . The density determined in water-alcohol mixture was 0.95 - 0.97. With increasing A:T ratio and constant T, the molecular weight of PE drops. Then, the amount of A determines the number of resulting polymer macromolecule chains. The A:T ratio was < 1 in tests 5, and 1.6 in test 6. While PE obtained by means of triisobutyl aluminum and TiCl_4 (Ref. 5, see below) had molecular weights of 67,000 - 940,000 and melting temperatures of $116 - 139^\circ\text{C}$, the molecular weights of the authors' PE were 91,000 - 316,000, the melting temperatures $127 - 130^\circ\text{C}$. The decrease of the molecular weight with decreasing Al-compound: TiCl_4 ratio observed in triisobutyl aluminum polymerization is probably due to the high excess of the former. Thus, the TiCl_4 amount determines the number of resulting polymer chains. There are 1 table and 5 non-Soviet references. The two references to English-language publications read as follows: Ref. 2: A. Grose, J. Mavity, J. Org. Chem., 5, 106, 1940; Ref. 5: E. Badin, J. Amer. Chem. Soc., 80, 6545, 1958.

Card 2/3

Polymerization of ethylene in the... S/190/61/003/011/012/016
B110/B101

ASSOCIATION: Institut fizikoorganicheskoy khimii AN BSSR (Institute of
Physical and Organic Chemistry AS BSSR)

SUBMITTED: December 26, 1960

Table. Ethylene polymerization.

Legend: (1) test no.; (2) amount of initiator components; (3) millimoles;
(4) polyethylene yield, g; (5) molecular weight; (6) melting point, °C.

① Эксп. №	② Количество компонентов инициатора			④ Выход полиэтилена, г	⑤ Молекулярный вес	⑥ Т. пл., °C
	③ А. ммоль	③ Т. ммоль	А/Т			
1	1,23	6,0	0,21	1,37	316 000	128
2	2,47	6,0	0,41	1,08	250 000	130
3	3,70	6,0	0,62	2,60	180 000	127
4	3,51	5,0	0,70	2,34	—	—
5	4,05	6,0	0,82	2,89	91 000	130
6	6,57	4,0	1,64	2,52	91 000	130

Table

Card 3/3

S/786/61/000/009/003/006
I065/I242

AUTHORS: B.V.Yerofeyev, S.F.Naumova, L.G.Tsykalo

TITLE: The mechanism of thermal polymerization of
1,3-cyclohexadiene

SOURCE: Akademiya nauk Belorusskoy SSR. Institut fiziko-organiche-
skoy khimii. Sbornik nauchnykh rabot. no.9.1961. Monomery,
svoystva i protsessy polucheniya polimerov, 71-79

TEXT: The thermal polymerization of 1,3-cyclohexadiene with the
simultaneous formation of the dimer (1,4-ethylene-1,4,5,6,9,10-
-hexahydronaphthalene) and polymeric materials of unknown molecular
weights has been studied by Hoffmann and Damm (Mitteilung Schle-
sisch.Kohlenforschungsinstitut, 2, 97-146 (1925); Chem.Zentr., 1,
2342-2344 (1926); Chem.Abstr. 22, 1249 (1928)). The purpose of
this work was to study the mechanism of this polymerization. 1,3-
cyclohexadiene was prepared from cyclohexene hydroperoxide. The
monomer was placed in ampules, connected to the vacuum system,

Card 1/3

The mechanism of thermal polymerization..S/786/61/000/009/003/006
IO65/I242

degassed and sealed off under vacuum. The sealed ampules were placed in baths thermostated at between 80 and 200°C. The polymer was precipitated by the addition of four volumes of methanol. The precipitate was dissolved in benzene, reprecipitated with methanol and dried to constant weight in vacuo. The dimeric material was isolated after the first precipitation by vacuum distillation of the solvent and monomer. The quantity of trimer formed was evaluated by difference. Polymerization runs were carried out at 200, 180, 160, 130, 100 and 80°C. The dimer and trimer are probably incapable of propagating the polymerization reaction. The pure dimer did not undergo thermal polymerization. The rate of polymerization increased with rise in temperature, but the molecular weights of the polymers formed were practically identical. Longer polymerization times did not change the concentrations of dimer, trimer and polymer formed. The formation of the dimer is thus a parallel reaction and not an intermediate stage in the polymerization. The first stage of polymerization is the formation of an activated dimer molecule which can react in three possible ways (a) it can

Card 2/3

S/786/61/000/009/003/006
I065/I242

The mechanism of thermal polymerization...

undergo inactivation, giving an inactive dimer as final product, (b) it can react with a monomer to yield benzene and cyclohexane through disproportionation, or (c) it can form an active trimer molecule which can either form a "dead" trimer through inactivation or combine with a monomer and form an active tetramer which will propagate the polymerization with the formation of high polymeric material. There are 5 figures and 2 tables.

Card 3/3

S/786/61/000/009/001/006
I065/I242

AUTHORS: B.V.Yerofeyev, S.F.Naumova, V.P.Markykin, I.V.Kulevskaya,
L.G.Tsykalo

TITLE: The dependence of the molecular weight of polyethylene
on the $\text{TiCl}_4/\text{Al}(\text{iso-C}_4\text{H}_9)_3$ ratio in the Ziegler catalyst

SOURCE: Akademiya nauk Belorusskoy SSR. Institut fiziko-organi-
cheskoy khimii. Sbornik nauchnykh rabot. no.9. 1961.
Monomery, svoystva i protsessy polucheniya polimerov.
59-62

TEXT: In the polymerization of ethylene initiated by a Ziegler
catalyst with excess TiCl_4 , the molecular weight of the polyethy-
lene obtained increases with decrease of the $[\text{AlR}_3]/[\text{TiCl}_4]$ ratio.
These findings disagree with the data of Badin (J.Am.Chem.Soc. 80,
6545, 1958). The polymerizations were carried out in a glass
vessel equipped with mechanical stirrer, reflux condenser, gas in-
let tube and a burette for the introduction of the dissolved cata-
lyst components. Molecular weights were determined viscometrically
Card 1/3

The dependence of the molecular ...

S/786/61/000/009/001/006
I065/I242

(in decaline, at 135°C). The interpretation of the experimental results is based on the assumption of a very high value for the stability constant (K) of the complex



so that

$$K \gg \frac{1}{[\text{TiCl}_4]_0 + [\text{AlR}_3]_0}$$

where the subscript o denotes initial concentrations. Then the concentration (X) of the $\text{TiCl}_4 \cdot \text{AlR}_3$ complex can be represented by the approximate expressions

$$[X]' \approx [\text{TiCl}_4]_0 \quad \text{for} \quad [\text{TiCl}_4]_0 < [\text{AlR}_3]_0$$

$$[X]'' \approx [\text{AlR}_3]_0 \quad \text{for} \quad [\text{AlR}_3]_0 < [\text{TiCl}_4]_0 ,$$

the component at the lower concentration being the limiting parameter. Since the degree of polymerization is inversely proportional to the catalyst concentration ($\overline{\text{DP}} \sim [X]^{-1}$), the molecular

Card 2/3

The dependence of the molecular ...

S/786/61/000/009/001/006
I065/I242

weight of polyethylene will increase on decreasing the $[AlR_3]/[TiCl_4]$ ratio when $[AlR_3]_0 < [TiCl_4]_0$, or on increasing the $[AlR_3]/[TiCl_4]$ ratio when $[AlR_3]_0 > [TiCl_4]_0$. There are 3 tables.

Card 3/3

KULAKOV, V.I.; POLYANSKIY, A.V.; SUSHKOV, A.I.; TSYKALO, S.B.

Quality of flat commercial aluminum ingots cast from
molten electrolytic baths. Alium. splavy no.3:390-396
'64. (MIRA 17:6)

TSYKALOV, T.

More on the regeneration of oils. Neftianik 3 no.6:28 Je '58.
(MIRA 11:9)

1. Nachal'nik proyektno-smetnogo byuro Kazakhshtanneftesbyta.
(Oil reclamation)

SOV/92-58-6-24/30

AUTHOR: Tsykalov, T.

TITLE: More on the Subject of Reclaiming Lubricating Oil (Yeshche raz o regeneratsii masel)

PERIODICAL: Neftyanik, 1958, Nr 6, p 28 (USSR)

ABSTRACT: The author agrees with the opinion expressed in the article "Lube Oil Reclaiming is an Important Problem of the Soviet National Economy" published in the Nr 9, 1957 issue of Neftyanik, and he believes that it is unwise to erect oil reclaiming units of the "Sel'khoz" 50 ton capacity type in bulk plants. The author suggests that oil reclaiming units be erected with an annual capacity ranging from 100 tons to 700 tons at existing bulk plants, and at bulk plants now in the process of construction. However, the standard type of such units has not yet been developed. Moreover, the problem of collecting the spent oil should be studied because consumers often mix different types of spent oil and deliver the mixed oil to bulk plants, which are unable to produce reclaimed oil with desirable properties from such a mixture. In the article referred to by the author the suggestion was made to build oil reclaiming units in groups which would be in a position to service several bulk plants or terminals. The author does not support this proposal and wonders if the oil reclaiming process should

Card 1/2

More on the Subject of Reclaiming (Cont.)

SOV/92-58-6-24/30

be entrusted exclusively to refineries. In his opinion, bulk plants should only take care of collecting the spent oil which is still reclaimable. Therefore, the proposed plan of erecting oil reclaiming units at each bulk plant should be revised and examined once more.

Card 2/2 1. Petroleum industry—USSR 2. Lubricating oils—Recovery

FEYNBERG, S. M., VOROBYEV, E. D., GRYASEV, V. M., KLIMENTOV, V. B., LYASHCHENKO,
N. Ya., TSIKANOV, V. A.

for Bibliis see Teykanov, V. A.

" Uranium-Water Intermediate Reactor Used for Obtaining High-Intensity
Neutron Fluxes."

paper to be presented at 2nd UN Intl. Cong. on the peaceful uses of Atomic
Energy, Geneva, 1 - 13 Sept 58.

2/19/60

3/089/60/008/06/01/021
8006/8063 52X2

AUTHORS:

Parabek, S. M., Konobeyevskiy, S. T., Dolichenko, V. A.,
Kozlov, I. V., Pilyayev, A. G., Kozlov, I. V.,
Kozlov, I. V., Pilyayev, A. G., Kozlov, I. V.,
Kozlov, I. V., Pilyayev, A. G., Kozlov, I. V.,

TITLE:

The CH(SZ) Research Reactor With a Capacity of 50 Mw

PERIODICAL:

Atomnaya energiya, 1960, Vol. 6, No. 6, pp. 493-504

TEXT: The present article gives a detailed description of the Russian 50-Mw research reactor which has a neutron flux of $2.2 \cdot 10^{15}$ n/cm²sec. It is used both for research work in nuclear physics and reactor engineering; obtaining of new, transmutic elements; testing of fission and building materials under neutron and gamma radiation; within the temperature range 200° - 2000°C, and in various media. The article contains a description of the reactor, its construction, and the spectrum of the (n,γ) reaction; examination of short-lived isotopes and spectrum of the (n,γ) reaction; examination of short-lived isotopes and spectrum of the (n,γ) reaction. The authors first discuss some characteristic data.

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The water-cooled, reflected reactor works with U235 enriched to 90%. The critical mass (without the experimental holes) is 7.5 kg of U235, and including the experimental holes, it amounts to 9.5 kg (loading: 11.7 kg). The maximum heat flow from the fuel element attains $5.7 \cdot 10^4$ kcal/m²hr. The maximum temperature does not exceed 1990°C. Fig. 1 shows the reactor. The location of the neutron flux in the cross section of the reactor; the flux/power ratio is $4.4 \cdot 10^{10}$ n/cm²·sec/kw. With a 25% submergence depth of the fuel elements, the reactor can be in continuous operation for a period of 60-65 days. Several details are dealt with next. Experimental holes: The reactor has five horizontal and fifteen vertical holes. The horizontal ones are in the central part of the active zone, above longitudinal and cross sections are shown in Figs. 2, 3. At the output of the holes the neutron flux amounts to $\sim 2 \cdot 10^{10}$ n/cm²·sec. The vertical holes are located in the reflector with the exception of the central one. Three of them serve for obtaining transmutic elements (one of these being in the center); two low-temperature holes serve for metal

Card 2/5

tests, two high-temperature holes for the testing of fuel elements, chemical analyses of the cooling water, and separation of the fission products. All of these holes are water-cooled. Furthermore, five gas-cooled holes are used for testing fission and building materials in the range of 0 - 6000°C; one hole (cooled with boiling gas or liquid H₂) serves for material tests at low temperatures; one gas-cooled hole for testing fuel elements and coolants. Construction: The following demands were made on construction: creation of a small active zone that would withstand high thermal loads for a long time, and its cooling; application of a maximum number of experimental holes (their distribution is shown in Fig. 3); possible partitioning of the assembly without pressure drop. Figs. 2, 3 illustrate the construction. Reactor body and cover: Fig. 2 is a perspective view of the cylindrical reactor body, made of 36 mm thick stainless steel of the grade 18/10/400 (18%Cr, 10%Ni, 400 MPa). The body consists basically of beryllium oxide; it is made up of blocks completely different types, which are enclosed by steel plates on top and bottom. Fuel element assemblies: The element itself has the shape of a plate with a

Card 3/5

The CM (SM) Research Reactor with a
Capacity of 50 Mw

5/089/60/008/06/01/021
8008/8003 8202

core, pressed from uranium oxide powder and electrolytic nickel; the
core is contained in a fuel element can. Fig. 6 shows a section through the
core, which is surrounded by another fuel element. Data of one such
element are compiled; every element contains 12.5 g U²³⁵. The cylindrical
body shield (Fig. 2) divides the inner reactor cavity into two zones.
The functions of this shield are briefly discussed, and the cooling water
circulation is described next. The control system is described in greater
detail. This system consists of two automatic regulators with two
regulation rods each, four shut rods, and four safety rods which can
also be used as shut rods. The automatic regulation is operated by 13
location chambers located outside the reactor core. The shut rods are
powered from 0.5 to 100 Mw. The safety rods are powered from 0.5 to 100 Mw
and are driven by a 100 Mw motor. The shut rods are driven by a 100 Mw
motor. The safety rods are driven by a 100 Mw motor. The shut rods are
driven by a 100 Mw motor. The safety rods are driven by a 100 Mw motor.
A few details are described, and the process of fuel
extraction is briefly dealt with. The cooling system is finally discussed.
It consists of four closed, separate loops. The water is kept flowing by
circulating pumps (500 l/h, 10 atm); the heat exchange power is 15 Mw.

Card 4/5

There are 8 figures and 1 table.
SUBMITTED: March 15, 1960

Card 5/5

7

S/089/63/014/003/014/020
B102/B186

AUTHOR: Taykanov, V. A.

TITLE: Thermal stresses and deformations in a long bar with non-uniform internal heat release

PERIODICAL: Atomnaya energiya, v. 14, no. 3, 1963, 322 - 324

TEXT: Temperature field, thermal stress and deformation are calculated for a long rectangular homogeneous bar placed near a reactor core; the heat source density distribution inside the bar is assumed to be governed by $q(x) = q_0 e^{-kx}$ or $q(x) = q_0 + kx$. For both cases the well-known relations for deformation and thermal stress are used for calculating the temperature dependences of the deformation and stress components. The cross-sectional temperature field is determined by solving the equation $\Delta T(x, y) + q(x)/\lambda = 0$. In the case of $q(x) = q_0 + kx$, the solution reads

$$T(x, y) = \frac{q_0 a^2}{2\alpha} (2 + Bi) - \frac{ka^2(3 + Bi)}{6\lambda(1 + Bi)} x - \frac{q_0 x^2}{2\lambda} + \frac{kx^2}{6\lambda} - \frac{4q_0 a Bi}{\alpha} \sum_n \frac{C_n}{\mu_n} \cos\left(\mu_n \frac{x}{a}\right) \operatorname{ch}\left(\mu_n \frac{y}{a}\right) - \frac{4ka^2}{\alpha} \sum_m C_m \left[\frac{Bi-1}{3(Bi+1)} + \frac{Bi+1}{\mu_m^2} \right] \times \sin\left(\mu_m \frac{x}{a}\right) \operatorname{ch}\left(\mu_m \frac{y}{a}\right). \quad (15)$$

Card 1/3

Thermal stresses and deformations ...

S/089/63/014/003/014/020
B102/B186

where

$$C_n = \frac{\sin \mu_n}{\left[\frac{\mu_n}{Bi} \operatorname{sh} \left(\mu_n \frac{b}{a} \right) + \operatorname{ch} \left(\mu_n \frac{b}{a} \right) \right] [2\mu_n + \sin(2\mu_n)]} \quad (16)$$

$$C_m = \frac{\cos \mu_m}{\left[\frac{\mu_m}{Bi} \operatorname{sh} \left(\mu_m \frac{b}{a} \right) + \operatorname{ch} \left(\mu_m \frac{b}{a} \right) \right] [2\mu_m + \sin(2\mu_m)]} \quad (17)$$

Bi is the Biot number. The deformation on uniform elongation $\epsilon_0 = \beta T(x, y)$ is given by

$$\epsilon_0 = \frac{q_0 \beta}{2\alpha} \left(2 + \frac{2}{3} Bi - \frac{8a}{b} Bi \sum_n \frac{C_n^*}{\mu_n} \right); \quad (20)$$

$$C_x = \frac{1}{R_x} = \frac{12ka^2\beta}{ab} \sum_m C_m^* \left(\frac{Bi-1}{3(Bi+1)} + \frac{Bi+1}{\mu_m^2} \right) - \frac{ka^2\beta(6+Bi)}{15\lambda(1+Bi)}; \quad (21)$$

where

$$C_n^* = \frac{C_n}{\mu_n^2} \sin \mu_n \operatorname{sh} \left(\mu_n \frac{b}{a} \right); \quad (22)$$

Card 2/3

$$C_m^* = \frac{C_m}{\mu_m^2} \operatorname{sh} \left(\mu_m \frac{b}{a} \right) \left(\cos \mu_m - \frac{\sin \mu_m}{\mu_m} \right). \quad (23)$$

Thermal stresses and deformations ...

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B102/B186

The stresses can be calculated from the relation $\sigma = E\varepsilon/(1-\nu)$, E is Young's modulus and ν Poisson's ratio; ab is the cross-section area of the bar, λ the heat conduction coefficient of its material, α the heat transfer coefficient from the bar to the surrounding medium, R_x a radius of curvature, μ_n and μ_m are tabulated functions ($\cot \mu_n = \mu_n/Bi$, $\cot \mu_m = -Bi/\mu_m$). $T(x,y)$ and ε_0 are given also for the case of exponential heat source distribution.

SUBMITTED: February 15, 1962

Card 3/3

EPF(c)/EPF(n)-2/EWT(m)/BDS--AFFTC/ASD/AFWL/SSD--Pr-L/Pu-L--DM
L 11205-63

ACCESSION NR: AP3001177

S/0089/63/014/005/0469/0473

64

AUTHOR: Tsykanov, V. A.

TITLE: Determination of cost of irradiation in a research reactor 19

SOURCE: Atomnaya energiya, v. 14, no. 5, 1963, 469-473

TOPIC TAGS: irradiation cost of reactor

ABSTRACT: A method is suggested for estimating the cost of a given irradiation experiment. The total cost of operating the reactor is computed taking into consideration the life of the reactor, fuel, servicing, labor, etc. This is the cost of useful neutrons that can be utilized in an experiment; the rest of neutrons is spent on keeping the reactor going. In a multichannel reactor the efficiency of each channel may not be the same; this also must be considered in determination of cost. The effect of the specimen on the reactivity of the channel and the cooling time for the specimen also play a part. An example of the estimation of cost for a six-channel reactor is given. Orig. art. has: 12 equations.

ASSOCIATION: none

Card 1/21

FEYNBERG, S. M.; TSYKANOV, V. A.; VOROBYEV, Ye. D.

"Reactor SM-2 with the Highest Available Neutron Flux."

report submitted for 2nd Intl Conf, Peaceful Uses of Atomic Energy, Geneva,
31 Aug-9 Sep 64.

FEYNBERG, S.M.; KOLEZHAL', N.A.; VOROB'YEV, Ye.D.; TSYKANOV, V.A.;
YEMEL'YANOV, I. Ya.; GRYAZEV, V.M.; KOCHENOV, A.S.; BULKIN, Ye.M.;
AGEYENKOV, V.J.; AVER'YANOV, F.G.

Physical and operational characteristics of the SM-2 reactor.
Atom. energ. 17 no.6:452 D '64 (MIRA 18:1)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310017-9

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310017-9"

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310017-9

Card 2/2

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310017-9"

TSYKANOV, V.A.

Research reactors and atomic power plants in France. Atom. energ.
18 no.3:306-309 Mr '65. (MIRA 12:3)

MIKHAYLOVSKYY, V.N. [Mikhailovs'kiy, V.M.]; PERVUSHIN, V.N. [Pervushyn, V.M.];
TSYKHAN, A.I. [TSykhanyan, O.I.]

Acoustic methods of mine geophysical prospecting. Dop. AN
URSР no.6:757-760 '63 (MIRA 17:7)

1. Institut mashinovedeniya i avtomatiki AN UkrSSR. 2. Chlen-kor-
respondent AN UkrSSR (for Mikhaylovskiy).

TSYKHAN, A.I., kand. tekhn. nauk; NIKOLAYCHIK, L.F.

Distinguishing reflected signals by intensive direct excitation in
sonar detection systems of nonuniformities of rocks. Vop. pered. inform.
3:72-76 '64. (MIRA 18:1)

KRINBERG, I.A.; TSYKHANSKIY, V.D.

Spectrochemical determination of small amounts of niobium and
tantalum in rocks. Zhur.anal.khim. 17 no.4:466-470 J1 '62.
(MIRA 15:8)

1. Institute of Geochemistry, Academy of Sciences of the U.S.S.R.,
Siberian Department, Irkutsk.
(Niobium—Spectra) (Tantalum—Spectra)

ZNAMENSKIY, Ye.B.; KONUSOVA, V.V.; KRINBERG, I.A.; POPOLITOV, E.I.;
FLEROVA, K.V.; TSYKHANSKIY, V.D.

Distribution of titanium, niobium, and tantalum in granitoids
containing sphenes. Geokhimiia no.9:800-805 '62.
(MIRA 15:11)

1. Institute of Geochemistry, Siberian Branch of the
Academy of U.S.S.R., Irkutsk.
(Geochemistry)

TSYKHOMIRY, Yu. M., 1946.

Work of the service personnel and engineering psychology.
Elek. sva. 36 no.1:56-58 Ja '65. (MIL. 18:1)

1949. 11, 1, p.

Sinkhayev, N. G. and Taulervanik, I. P. "On the condensation of vinyl ethers with aromatic compounds", (from the Graduate dissertation of N. G. Sinkhayev), Izvestiya Akad. nauk UzSSR, 1948, No. 4, p. 29-41, (Resume in Uzbek), Bibliog: 18 items.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 10, 1949).

MIKHAYLOVSKIY, V.N.; TSYKHAN, A.I.

Effect of static stresses on the propagation of elastic waves in
metals. Avtom. kont. i izm. tekhn. no.1:70-73 '57. (MIRA 11:6)
(Sound--Transmission)

AUTHOR: Tsykhan, A.I. (L'vov) SOV/24-58-9-21/31

TITLE: Utilization of Audio Signal Systems in Telemetry Equipment
(O primenenii zvukovykh signal'nykh sistem v tele-
izmeritel'nykh ustroystvakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh
Nauk, 1958, Nr 9, pp 124 - 126 (USSR)

ABSTRACT: It is shown that certain parameters of oil boreholes can be transmitted to the surface during halts in the boring operation using audio signals transmitted through the drill tube or the drilling mud. Some data are given on the attenuation of longitudinal sound waves (at 50 to 1 200 cps) in the drill tube with a clay-base mud. The results with a steel wire are similar. Some data on the mud itself are mentioned but not fully presented. The noise spectrum data are said (not shown) to indicate an optimum frequency of 30 - 40 cps; depths as great as 3 000 m can be used under suitable conditions. There are 1 table and 3 Soviet references.

SUBMITTED: July 29, 1957

Card 1/1

MIKHAYLOVSKIY, V.N.; TSYKHAN, A.I.; SELASTEL'NIKOVA, E.A.

Designing a hydraulic turbotachometer. Avtom.kont. i izm.tekh.
no.5:159-164 '61. (MIRA 14:11)

(Tachometer)

TSYKHAN, A.I.; PEKHN'O, M.I.

Self-packing valve of automatic devices operating in heavily
contaminated fluids. Mash. i neft. obor. no.9:24-25 '63.
(MIRA 17:2)

1. L'vovskiy institut mashinovedeniya i avtomatiki AN UkrSSR.

TSYKHAN, A.I. (L'vov)

Using sound signaling systems in telemetering units. Izv. AN SSSR.
Otd. tekhn. nauk no. 9: 124-126 S '58. (MIRA 11:10)
(Oil well logging, Electric) (Signals and signaling)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310017-9

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310017-9"

TSYKHAN, A. I.

Tsykhan, A. I.

"Investigation of acoustic channels for depth measurements in oil wells."
Mn Higher Education Ukrainian SSR. L'vov Polytechnic Inst. L'vov, 1950.
(Dissertation for the Degree of Candidate in Technical Sciences).

Knizhnyaya letopis'

No. 5, 1956. Moscow

MIKHAYLOVSKIY, V.N.(L'vov); TSYKHAN A.I.(L'vov)

Effect of static tension on sound conductivity and speed in metals.
Izv.AN SSSR.Otd.tekh.nauk no.1:139-140 Ja '57. (MLRA 10:3)
(Sound waves) (Metals)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310017-9

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310017-9"

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310017-9

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310017-9"

TSYKHAN, A.I.; PEKHN'O, M.I.

Shock-absorption requirements for bit rollers of small diameter
in the drilling of solid rock. Neft. i gaz. prom. no.2:33
Ap-Je '64. (MIRA 17:9)

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																																																																																																																																	
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<p>Diffusion of Heat from Spherical Bodies Cooled in a Granular Medium. (In Russian.) O. A. Tsykhanov and O. D. Salamandra. <i>Bulletin of Academy of Sciences of the U.S.S.R., Section of Technical Sciences</i>, Aug. 1947, p. 977-986.</p> <p>Gives results of an experimental investigation using steel balls, semi-coke, and powdered talco-chlorite, to prove the empirical law of cooling. Derives a formula to cover the heating of a charge from a spherical source, in which the granular medium is considered as a continuum with an assumed coefficient of heat conductivity.</p>																																																																																																																																																											
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1464. DIFFUSION OF HEAT FROM SPHERICAL BODIES COOLED IN GRANULAR MEDIUM. Taykhanov, O. A. and Salamandra, G. D. (Izvyestiya Akad. Nauk U.S.S.R., Sect. Tech. Sci., Aug. 1947, 977-986). Gives results of an experimental investigation using steel balls, semi-coke, and powdered talcochlorite, to prove the empirical law of cooling. Derives a formula to cover the heating of a charge from a spherical source, in which the granular medium is considered as a continuum with an assumed coefficient of heat conductivity.																									
B.L.R.																									

TSYKHANSKIY, T.S.

For further economy of raw materials used in the leather industry.
Leg. prom. 16 no.7:12-14 J1 '56. (MLRA 9:10)

1. Nachal'nik planovo-ekonomicheskogo otdela Rosglavkozhh.
(Hides and skins)

KOMISSAROVA, N.V.; TSYKHANSKIY, T.S. [deceased]

New ways for solving problems in curing raw leather. Kozh.obuv.
prom. 2 no.3:4-6 Mr '60. (MIRA 14:5)
(Leather)

"APPROVED FOR RELEASE: 08/31/2001

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APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310017-9"

ACCESSION NR: AP4015150

S/0289/63/000/003/0125/0127

AUTHORS: Tsy*khanskiy, V. D.; Krinberg, I. A.

TITLE: Spectrochemical determination of small amounts of zirconium, niobium, tantalum and hafnium in rock from one batch.

SOURCE: AN SSSR. Sib. otd. Izv., no. 11. Ser. khim. nauk, no. 3, 1963, 125-127

TOPIC TAGS: zirconium, niobium, tantalum, hafnium, analysis, spectral analysis, spectrochemical determination, phenylarsonic acid precipitation, rare earth concentration

ABSTRACT: The Zr, Nb, Ta, and Hf content of ore must be concentrated prior to spectral analysis. The following method gives a 100-300 fold enrichment: the ore is dissolved and the aforementioned metal values and Ti are precipitated with phenylarsonic acid. The precipitate is calcined at 900-1000C. This product containing TiO_2 , ZrO_2 , Nb_2O_5 , Ta_2O_5 , and HfO_2 is mixed with powdered carbon (1:4), and consumed in the anode of an electric arc (25 amp). The following lines are used for analytic purposes: Nb--2950.878, Ta--2714.674, Zr--2722.610 and Hf--2866.373 Å. If the concentration of Zr and Nb

Card 1/2

ACCESSION NR: AP4015150

exceeds that of Ta and Hf, less sensitive lines are suggested:
Nb--2716.624 and Zr--2699.605 Å. Concentrations in the range of
0.007-0.3% of all four of these elements can be determined by this
method within 10-15%. Orig. art. has: 1 Table.

ASSOCIATION: Institut geokhimi, Sibirskogo otdeleniya AN SSSR,
Irkutsk (Geochemical Institute, Sibirsk Branch AN
SSSR, Irkutsk)

SUBMITTED: 27Jul62

DATE ACQ: 13Mar64

ENCL: 00

SUB CODE: CH

NR REF SOV: 008

OTHER: 000

Card 2/2

TSYKHAN'KIN, V.D.; KONUSOVA, V.V.

Possibility of determining small amounts of tantalum in rocks
by the photometric method. Izv. SO AN SSSR no.3 Ser. khim.
nauk no.1:133-135 '65. (MIRA 18:8)

1. Institut geokhimii Sibirskogo otdeleniya AN SSSR, Irkutsk.

S/075/62/017/004/005/006
I017/I242

AUTHORS: Krinberg, I.A., and Tsykhanskiy, V.D.

TITLE: Spectrochemical determination of small amounts of
niobium and tantalum in rocks.

PERIODICAL: Zhurnal analiticheskoy khimii, v.17, no.4, 1962,
466-470

TEXT: A method is proposed for the determination of
niobium and tantalum in granite. The rock is at first enriched
chemically by treatment with phenylarsonic acid to precipitate
selectively niobium, tantalum and titanium. The enriched products
are then analysed spectroscopically. Tantalum is determined by

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S/075/62/017/004/005/006
I017/I242

Spectrochemical determination...

the spectral line Ta 2714.674 and niobium by Nb 2950.878. The determination of niobium and tantalum by this method is possible only if the content of these elements in the rock exceeds $5 \times 10^{-5}\%$. The error is 7% for niobium and 9% for tantalum. There are 2 figures and 5 tables.

ASSOCIATION: Institut geokhimii Sibirskogo otdeleniya AN SSSR,
Irkutsk (Institute of Geochemistry, Siberian Section
AS USSR, Irkutsk)

SUBMITTED: June 12, 1961

Card 2/2

REF ID: A66177

Designation of power system components. Elek. stat. 35 no. 1
1965 1a 164. (MIRA 17:6,

1-7/1/44N-2.1 7, 7.
VAYNSHTEYN, B.Z., inzhener; GOL'TSMAN, V.G., inzhener; DENKEVITS, E.G.,
inzhener; TSYKHANSKIY, Yu. L., inzhener; LEBEDEVA, V.I., inzhener.

Replies to N.F. Burzhinskii's article "Articles from protection
against electric current." Energetik 4 no. 11: 11-15 N '56.

(MLRA 9:12)

(Clothing, Protective) (Electric engineering--Safety appliances)

TSYKHANSKIY, Yu.L., inzh. (Yaroslavl')

Work post of an attending dispatcher. Energetik 13 no.11:
6-7 N '65. (MIRA 18:11)

SHILKIN, P.M.; ZEL'VYANSKIY, Ya.A.; SIBAROV, Yu.G.; KUSTOV, V.M.;
TSYKHMAN, A.I.; KUVSHINOV, M.I.; SHIPAREV, Yu.A.; TYURNIN,
G.A.; AVSTREYKH, L.D.; BAKANOV, N.N.; KHITROV, P.A., tekhn.
red.

[Safety engineering regulations for operating the contact
networks of d.c. electrified railroads] Pravila tekhniki bez-
opasnosti pri ekspluatatsii kontaktnoi seti postoiannogo to-
ka elektrifikatsirovannykh zheleznnykh dorog. Moskva, 1962.
(MIRA 15:7)
128 p.

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye elektrifi-
katsii i energeticheskogo khozyaystva. 2. Zamestitel' na-
chal'nika tekhnicheskogo otdela TsE Ministerstva putey
soobshcheniya (for Shilkin). 3. Tekhnicheskii otdel TsE Mi-
nisterstva putey soobshcheniya (for Zel'vianskiy). 4. TSen-
tral'nyy komitet profsoyuza rabochikh zheleznodorozhnogo
transporta (for Sibarov). 5. Nauchno-tekhnicheskii sovet Mi-
nisterstva putey soobshcheniya (for Kustov). 6. Sluzhba
elektrifikatsii i energeticheskogo khozyaystva Odesskoy zhe-
leznoy dorogi (for Tsykhman). 7. ECh Yuzhno-Ural'skoy zheleznoy
dorogi (for Kuvshinov). 8. ECh Moskovskoy zheleznoy dorogi
(for Segala, Shiparev, Tyurnin). 9. EChK Oktyabr'skoy zhelez-
noy dorogi (for Avstreykh). EChK Moskovskoy zheleznoy dorogi
(for Bakanov). (Electric railroads—Safety regulations)

TEYZIN, A., polkovnik, kand. istoricheskikh nauk

Immortality of a feat. Kryn. rod. 16 no. 614-5 Je '65.
(MIRA 18:10)

TSYKIN, A., polkovnik, dotaent, kand. istoricheskikh nauk

The Moscow Guards Regiment. Kryl. rod. 16 no.1:5 Ja '65.
(MIRA 18:3)

TSYKIN, A., kand.istorich.nauk, polkovnik

Triumph of life. Kryl.rod. 14 no.6:7 Je '63. (MIRA 16:7)
(World War, 1939-1945--Aerial operations)

TSYKIN, B.S.

KOLOBOVA, M.V., inzh.; TSYKIN, B.S., inzh.

Output of clear pine lumber by sorts. Der. prom. 6 no.10:3-5 0 '57.
(MIRA 10:11)

1. TSentral'nyy nauchno-issledovatel'skiy institut mekhanicheskoy
obrabotki drevesiny.

(Lumber)

KOLOBOVA, M.V., inzhener; TSYKIN, B.S., inzhener.

Effect of the quality of pine log wood upon the grades of lumber materials. Les.prom.14 no.4:29-30 Ap '54. (MLRA 7:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki drevesiny. (Lumber--Grading) (Pine)

TSYKIN, B.S., inzhener.

Rapid method of calculating deliveries. Der. prom. 5 no.10:
15-16 0 '56. (MLRA 9:11)

1. TSentral'nyy nauchno-issledovatel'skiy institut mekhanicheskoy
obrabotki drevesiny.
(Slide rule) (Woodwork)